

# Sexually transmitted diseases

## The present situation in Sweden

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### Introduction

In Sweden there are strict laws stipulating that venereal diseases must be reported. However, most patients who visit clinics for sexually transmitted diseases (STDs) are not suffering from the traditional venereal diseases but from other types of STDs. These other diseases do not need to be reported and no figures are available for the country as a whole, but the STD clinic of the University Hospital in Uppsala has continuously recorded all diagnoses, as well as other factors, since 1972. There are reasons to believe that the figures for Uppsala are similar to those at other STD units in Sweden.

### Gonorrhoea and syphilis in Sweden

Figure 1 shows the number of cases of gonorrhoea and syphilis in Sweden between 1950 and 1976. The

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Received for publication 1 September 1977

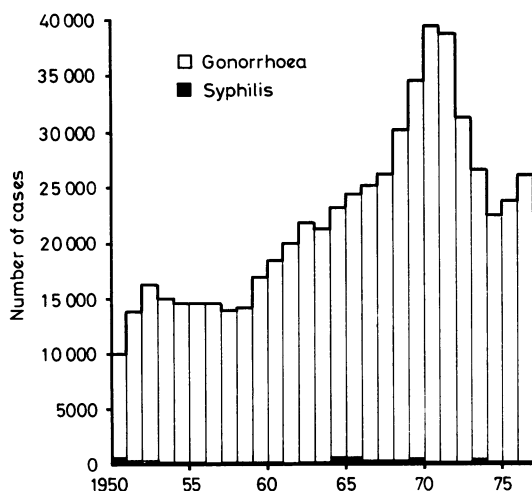


Fig. 1 The number of cases of gonorrhoea and syphilis in Sweden, 1950-76

rate for syphilis is low. The rate for gonorrhoea increased from 1959 to 1970 and then there was a marked decrease, which in the last two years has changed to a new period of increase. Table 1 shows

Table 1 Gonorrhoea in Sweden, 1975. (Cases per 100 000 inhabitants)

Age group (years)	Men	Women
10-14	2	29
15-19	482	1471
20-24	1606	1424
25-29	1040	605
Average (all ages)	312	280

the number of cases per 100 000 inhabitants according to different age groups in 1975. Figures 2 and 3 demonstrate the decrease of gonococcal infections among teenagers between 1971 and 1974. The reason for these changes is unknown but several factors have been given to explain the marked decrease during the early 1970s. More information about venereal diseases has been given at schools

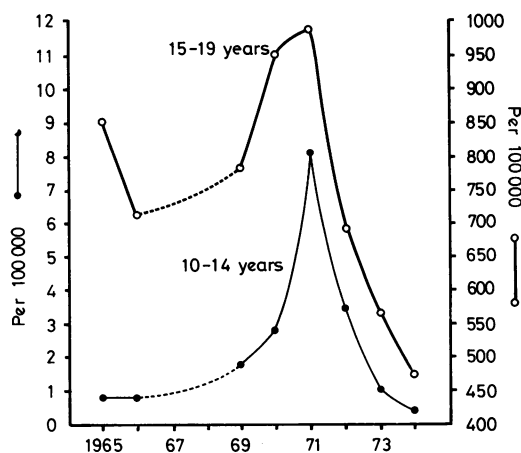


Fig. 2 The number of boys with gonorrhoea in Sweden, 1965-74.

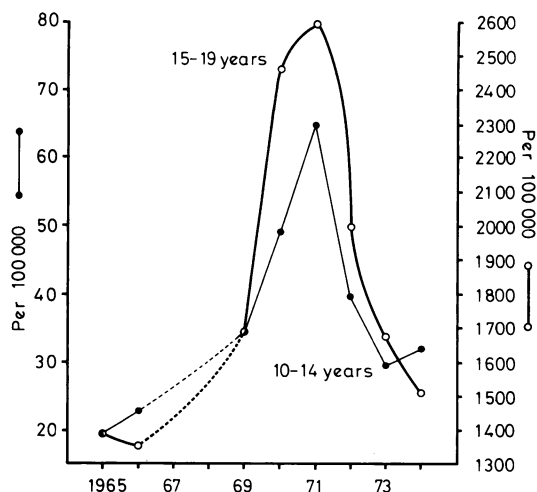


Fig. 3 The number of girls with gonorrhoea in Sweden, 1965-74.

and in newspapers. Condoms have been widely advertised. The medical facilities for managing people who suspect they have a venereal disease have improved. The treatment for gonorrhoea has been simplified, as well as the routines for examination after treatment. The relevance of each one of these factors is unknown but altogether they can be seen as part of a more open attitude towards STDs in Sweden. Infected men seem to feel more able to advise sexual partners to be examined and women do not hesitate to go to the doctor for an examination for STD. This is shown in Fig. 4 which shows a continuous decrease in the ratio of men to women per 100 000 inhabitants—from 1.7:1 in 1961 to 1:1:1 in 1976.

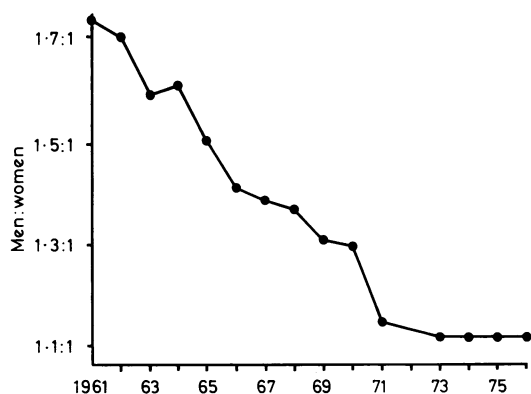


Fig. 4 Gonorrhoea in men and women in Sweden, 1961-75

When comparing two groups of patients with gonorrhoea in Uppsala in 1969 and 1974 a significant decrease was found in the percentage of men with more than one partner during the month before the day of diagnosis (Table 2). A similar

Table 2 Percentage of patients with gonorrhoea and with more than one partner during the month before the day of diagnosis

Year of investigation	Men	Women
1969	60 (n=200)	35 (n=200)
1974	42* (n=200)	28 (n=200)

\*P<0.001

P=The probability that the difference between the men studied in 1969 and the men studied in 1974 is caused by random factors.

comparison between figures for 1974 and 1976 shows no further decrease. This change in sexual habits in the early 1970s may help to explain the decline in gonorrhoea during that period.

#### Results from the STD clinic in Uppsala

Table 3 presents the final diagnoses of patients

Table 3 Final diagnoses recorded for 2181 men and 1457 women, 1972-76

Diagnosis	Men	Women
	%	%
Gonorrhoea	16.6	27.2
Syphilis	0.4	0.4
Non-gonococcal urethritis	35.1	—
Cysto-urethritis	—	3.0
<i>T. vaginalis</i> vaginitis	—	5.6
Non-specific vaginitis (including <i>C. albicans</i> )	—	26.7
Condylomata acuminata	9.3	5.8
Herpes genitalis	3.8	2.7
Pediculosis/scabies	1.7	2.4
Eczema/mycosis	2.7	0.6
Others	7.9	3.0
Free from disease	29.2	28.1

who visited the STD clinic in Uppsala from February to April in each of the years 1972-76. This clinic serves an area that has about 150 000 inhabitants including 20 000 university students. All women with a gonococcal infection diagnosed by culture at the Department of Gynaecology were followed-up in the STD clinic and are included. Gonorrhoea was diagnosed in 16.6% of the men and in 27.2% of the women. The diagnosis most often made for men was non-gonococcal urethritis (NGU), (35.1%), while in the women non-gonococcal vaginitis was found in 26.7%. Vaginitis caused by *Trichomonas vaginalis* was

found in 5.6% of the women and the relationship between vaginitis caused by *T. vaginalis* and *Candida albicans* can be estimated to be about 1:2.

Table 4 shows the types of complicated gonococcal

Table 4 Types of gonococcal infection recorded, 1972-76

	Men		Women	
	No.	%	No.	%
Uncomplicated	355	98.3	340	85.5
Salpingitis			53	13.4
Epididymitis	4	1.1		
Arthritis	2	0.6	0	0
Disseminated	0	0	4	1.1
Total	361	100	397	100

infection recorded during the five-year period. Salpingitis occurred in 13.4% of all women with gonorrhoea and the disseminated form was found in four, which is 1.1% of all cases of gonorrhoea in women.

The existence of *Neisseria gonorrhoeae* in the tonsillo-pharyngeal region has been a matter for conjecture for many years. In 1974, tonsillar specimens for the culturing of *N. gonorrhoeae* were taken from all patients visiting the clinic in Uppsala. In 7% of all men and 9% of all women with genital gonorrhoea, gonococci were found in the tonsillar region. Orogenital contact was admitted by 66% of the patients with tonsillar gonococci. Despite careful questioning, no evidence was found for gonococcal transfer by mouth-to-mouth contact. Tonsillar gonorrhoea seems therefore to be of epidemiological importance mainly for those practising orogenital contact. Specimens for gonococcal culture are now taken only from selected cases, such as those in whom pharyngeal gonorrhoea or disseminated gonorrhoea is suspected. This regimen has been used for two years and so far there have been no complications from undetected pharyngeal growth of gonorrhoea.

In England an increasing number of reported cases of NGU has been found since the middle of the 1960s. There are different opinions about the reason for this increase. Is it a real increase or the result of, for example, more patients seeking medical advice and better diagnostic facilities? In Sweden, NGU is not reported and there are reasons to believe that many cases of NGU are diagnosed on inadequate grounds. As can be seen from Fig. 5, the percentage of men with NGU at the clinic in Uppsala has remained much the same for the years 1972-76. As there have been no changes in the availability of medical facilities, the diagnostic criteria used, or in the population of men during the

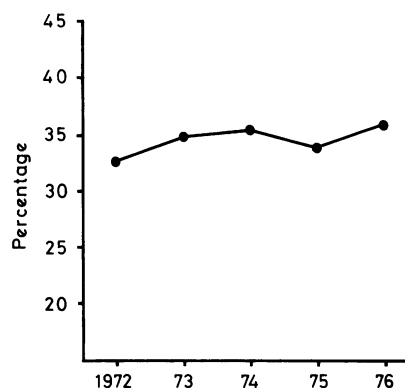


Fig. 5 Percentage of men with NGU in Sweden, 1972-76.

period, there is no evidence of a widespread increase in NGU in Uppsala.

Extensive studies on the importance of the *Chlamydia* organism for the development of genital infection have been undertaken in many parts of the world. Studies in Sweden do support the impression that *Chlamydia trachomatis* plays an important role as an aetiological agent for NGU (Ripa *et al.*, to be published).

#### Studies on acute salpingitis

A thesis on the diagnosis, aetiology, and prognosis of acute salpingitis was recently presented in Sweden (Weström, 1976). It was concluded that the causative agents in the tubal infections in acute salpingitis were still in many cases unknown, and that the role played by *N. gonorrhoeae* seemed to be less important now than in earlier days. Other micro-organisms, such as mycoplasmas and *Chlamydia*, could be isolated from the Fallopian tubes in women with acute salpingitis. Weström (1976) found that cultures, serological investigations, and experimental infections of organ cultures of human Fallopian tube epithelium suggest that *Mycoplasma hominis* is responsible for some cases of salpingitis. Mårdh *et al.* (1977) were able to isolate *C. trachomatis* from the cervix of 19 out of 53 women with acute salpingitis and from the Fallopian tubes of six out of 20 of these women.

#### Sweden and the law

In 1976 the Swedish State Social Health Board presented an analysis of the situation concerning the venereal diseases and the law. In the report it was stated that:

1. Most of the patients seeking medical advice at the special clinics for venereal disease do not have a venereal disease but another STD, or are free from disease.
2. Since 1970 there has been a marked decrease in the number of reported cases of gonorrhoea.
3. Complications after other STDs seem to be as serious as those after gonorrhoea.
4. There were few cases of infected infants reported during recent years.
5. Contact tracing by the public health officer affects only a minority of persons with gonorrhoea.
6. Treatment for gonorrhoea is simple and effective.
7. The special regulations by law point out to the public the difference between diseases in

general and venereal diseases. This may contribute to the preservation of old attitudes.

It was concluded in the report that the treatment of gonorrhoea by no means needed to be regulated by a special law. There are good reasons to believe that within a few years Sweden will reduce the number of regulations concerning venereal disease.

#### References

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